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ABSTRACT

A secondary school reading program initiated at Manhattan (Kansas) High School and involving the efforts of teachers, students, administrators, members of the board of education, and faculty members of Kansas State University is described in this paper. The first section of the paper provides background information about the program, which provided for all levels of learners, contained a systematic teacher inservice plan, and incorporated an evaluation component. In addition, this section describes each component of the instructional program, including reading electives designed for average and above average readers, reading laboratory classes offered by reading specialists for students with special needs, and the reading-in-the-content-area component, for which content area teachers receive special training in ways to integrate reading and study skills instruction into their lessons. The second section of the paper describes the inservice component of the program, emphasizing the role of the university and the evaluation procedures used. (FL)

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THE MANHATTAN PROJECT: COMBINED RESOURCES FOR A DIVERSIFIED SECONDARY SCHOOL READING PROGRAM

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The Manhattan Project: Combined Resources for A Diversified Secondary Reading Program

Part 1: The School District's Commitment to a Diversified Secondary School Reading Program

In the past few years much emphasis has been directed toward a secondary reading program that is content oriented (Hill, 1965; Robinson, 1972; Peters, 1977; Shepherd, 1979; and Readence, Baldwin and Dishner, 1980). Although the school reading program needs to be content oriented it will not be a comprehensive program according to Peters'(1977) model unless it also includes a remedial approach and a developmental approach. The Manhattan Project at Manhattan, Kansas High School has accomplished a comprehensive reading program.

Manhattan is a town in east central Kansas, population 32,000 and the home of Kansas State University with an enrollment of 19,000. The high school in Manhattan encompasses grades 9-12 and has about 1,600 students. Fort Riley Military Base is adjacent to Manhattan.

The Manhattan Project was conceived in its present form in the fall of 1979. The project culminated in a total thrust reading program for Manhattan High School. A program in which: 1) provisions were made for all levels of learners; 2) there was a systematic inservice plan; and 3) there was an evaluation component. It was from this time that the board of education, administration, faculty, students, Flinthills Teacher Center, and Kansas State University all contributed to a secondary reading program designed to benefit all Manhattan High School students.

Reading classes were not new to Manhattan High School. Since the early sixties an elective course in Reading Improvement had been taught by a reading specialist and had been accepted as meeting the reading needs of the high school students until the summer of 1976. At this time Project Link, one component of the Kansas Educational Dissemination/Diffusion System, sponsored a Needs Assessment Workshop for department heads in Manhattan's secondary schools. This group established ten objectives for the Manhattan Schools and designated the following emphasis as their number one priority: "A student should have competency in the basic skills (Math, Science, Language) by graduation from District #383." In the summer of 1978 the board of education took a step further by setting as a district wide priority improving the basic skills of all students. In the late fall of 1978 the board and the superintendent took even more specific steps which were based on a review of the results of the Tests of Achievement and Proficiency (TAP) which were given to all 9th and 12th graders that fall. The results of those tests indicated that approximately fifteen percent of the 9th grade students had a significant deficiency in reading and the board implemented a policy, to be outlined further, to remedy this deficiency.

In the fall of 1978 the high school reading teacher had also proposed a program encompassing three types of reading instruction. The program's three courses were: 1) a remedial course designed for students with poor skills desiring intense remediation; 2) a nine week course for all tenth grade students taught by a reading specialist; and 3) an accelerated reading course for college bound students. At this point though, one integral part was missing--the integration of

reading into the content areas. It was the reading specialist's goal to begin a program within a year which would accomplish that integration.

Implementation of reading in the content areas began with the formation of a steering committee such as proposed by Robinson (1972) and Shepherd (1979). The committee's task was to develop the means by which the reading program could be integrated with the total school curriculum. Robinson (1972) notes:

> A secondary reading program may be self-defeating if it is not integrated with the total school curriculum. A secondary reading program which is conceived and executed as though it were a separate entity may be meaningless to everyone except the reading teachers and a few exceptional students . . . The program is meaningless in isolation because reading is a process not a subject, and has no content of its own. Reading depends on the total school curriculum to make it viable. One does not read 'Reading' (p.

With total school integration its goal, two content teachers and the reading specialist visited the Vocational Reading Power (VRP) Project Site in Minneapolis, Minnesota in September of 1979. This visitation was based on preliminary information gained about the program by the Director of Secondary Education and the reading specialist through attendance at the National Diffusion Network's "Showcase" at Kansas State University in the spring of 1978.

On-site visitation showed the goals of the VRP program to be compatible with those of the steering committee. The VRP goals are: 1) narrow the gap between student reading ability and the skill level required to read printed instructional materials; 2) to enrich content area teachers' knowledge, attitudes, and skills as they relate to the use of textbooks and other reading related activities; and 3) to increase student learning of content.

Consequently the committee, with the support of the high school principal, explained the possibility of a reading in the content areas inservice program to the high school staff. The staff expressed a strong interest and requested implementation. Taking steps toward this implementation led the committee to desire more long-term intensive inservice than VRP could provide. The reading specialist subsequently contacted a professor of reading at Kansas State University and a two semester program in conjunction with VRP's initial inservice was established.

The project needed funding and the Director of Secondary Education initially committed a large portion of the district's inservice budget to that purpose. Flinthills Teacher Center and National Diffusion Network monies were added as the program progressed.

In the spring of 1980 eleven teachers were selected to participate and the five developmental stages set forth by Readence, Baldwin and Dishner (1980) of: 1) awareness, 2) knowledge, 3) simulation, 4) practice, and 5) incorporation are now one year later a total realization. An additional 11 teachers are at the knowledge stage.

While reading was being integrated into the whole school curriculum the three courses continued to develop and mesh with each other and the goals of the total secondary curriculum.

READING LAB is the remedial course and required by district policy of all 9th and 10th grade students falling below the reading competency level on the TAP test. It is also made available and recommended for those students at all grade levels that need intensive work in improving reading skills. Emphasis is placed on mastery of basic life skills such as understanding labels, instruc-

tions, maps, graphs and typical forms. There is intensive work on essential vocabulary, and on the specific comprehension skills of recognizing main ideas and specific details that support those main ideas. This course especially attempts to teach the student at the level where he/she is succeeding and move the student to the highest possible level. It is the intent to tie these skill improvements to each student's content classes as totally as possible.

Reading Lab is a semester course and the maximum class size is fifteen. All students take the Stanford Diagnostic Reading Test (SDRT), Blue Level, upon entrance and exit. The SDRT and the TAP reading comprehension section combine with teacher recommendation to determine if the student will be required to take the course again. The school board policy requires continuance in Reading Lab until an 8th grade reading level is ascertained or teacher recommendation indicates movement out of the course is desirable.

Reading Lab is extremely individualized. Each day begins with a short group activity and then the students have a major and a minor activity assigned. Assignment sheets are developed based on skill needs and emphasizing the student's strengths as well as weaknesses. The student is involved in learning and knows when a particular skill has been mastered. He/she also conferences with the reading teacher regarding the transfer of skills to other content areas. The program subscribes to an eclectic approach.

A developmental course called SOPHOMORE READING is required of all 10th graders. Sophomore Reading is a nine week unit of the regular English course. The course's specific objectives are: 1) to establish the use of efficient reading rates for different content materials; 2) to teach vocabulary deemed important in the

required courses of American and British Literature, U.S. History and U.S. Government; 3) to allow a diversity of reading experiences; and 4) to emphasize reading as a recreational activity.

The students are tested in the spring of their ninth grade year with the Gates MacGinitie Reading Test, Level F and again in the spring of their tenth grade year. Many types of materials that cover levels from third grade to college are used.

POWER READING is a semester course designed for the 11th and 12th grade student who is looking toward college or vocational school after high school graduation. The course is designed to provide practice in reading and study techniques for the effective reading of academic materials. The emphasis is upon a faster or more versatile reading rate, improved comprehension and retention, and increasing vocabulary. Listening skill improvement, acquiring a reading/study system, notetaking, outlining, and preparing for exams are also incorporated. Assignments are individualized to meet the special concerns of those students in the class, plus there are class activities twice a week that particularly emphasize notetaking/ listening procedures.

The students use guided readers, shadowscopes, and phrase flashers to attain versatile reading speeds. Amsco's Vocabulary for the College Bound Student is the primary source used to enlarge vocabulary along with the "One Word a Day Calendar." Indepth use of reading/study systems such as SQ3R and SCORE are incorporated using the students' own texts. Methods useful in anticipating test questions and memory training help guide the students in their future post-secondary experiences.

The final component of the comprehensive reading program at Manhattan is READING IN THE CONTENT AREAS. Here processes using reading strategies are on-going and re-emphasized in many classrooms each day. This developmental program covers all ages and all contents. Its roots are in the inservice program which is discussed in detail in the second part of this paper.

The way the Manhattan Project developed and its components have been explained. This program, however, did not come about without many different people in the school district taking on responsibilities all aimed at accomplishing a total thrust reading program at Manhattan High School.

The board of education and the superintendent made some policy decisions as previously indicated regarding the importance of reading at the secondary level. They ultimately also committed the funds necessary to implement their decisions.

This program did not lack the administrative support that Peters (1977) indicates is the number one problem in many programs. Coupled with the board's funding, the Director of Secondary Education worked out the funding of the indepth program. His assistance gained some extra monies from a Title IV C Adoption/Adaption Grant and from Flinthills Teacher Center curriculum and tuition grants. He especially provided support and the communication link between the high school and the main office administration.

Without the support of the high school principal the program would have failed. Nila B. Smith (1966) offered several suggestions in regard to the principal's place in establishing a reading program.

Manhattan's principal has been exceptional in supporting those ideas:

1. He was enthusiastic about starting the program and confident of its success.
2. He made budgetary provisions for purchasing extra reading materials.
3. He let his interest and concern for better reading permeate the total program and its staff.
4. He supported the steering committee which made the VRP visitation and recommendation to adopt.
5. He accepted the idea of combining forces with Kansas State University.
6. He helped in participant selection.

The steering committee as mentioned was instrumental in the selection of the VRP program for the initial inservice. They also supported the idea of incorporating courses from the university. They surveyed the faculty and helped in the selection of the first and second group of staff to participate in the program. They also supplied many ideas about how the program was perceived by the entire staff and its progression. They will be of great importance as continued evaluation is done regarding the total thrust reading program at Manhattan High.

The project coordinator was the reading specialist and was instrumental in combining all the resources to complement each other and combine into a comprehensive program. She conducted some inservice sessions as well as participated in all the inservice and course work that the content teachers experienced. She helped with the evaluation

and tried to support the teachers while keeping the communication network open and free-flowing from the students to the board of education. She is the second component necessary in Peters' (1977) comprehensive program. The reading teachers taught the classes, diagnosed as necessary, and provided assistance, support and resources

The content teachers taught their subject matter using strategies they had acquired, and focused on conveying reading processes to their students within their content subjects.

Finally all worked toward the general student goals of seeing students increase their content knowledge, have an easier time of doing that, and fostering in the student a more positive attitude toward the content area and general reading.

The Manhattan Project has the three conditions Rauch (1968) indicated need to be present to involve the total faculty in the improvement of reading. MHS has: 1) genuine interest and support of a school-wide reading program by the administration and supervisory staff; 2) a concentration on the classroom teacher's immediate and specific problems; and 3) realistic and effective inservice education.

Any size school district which desires to develop a total thrust program should be able to implement one based on the Manhattan Project Design. Each school district has the components necessary for implementation and needs only to make such a commitment to the improvement of learning within their district. Even without a university in town, a long-term project could be devised through the continuing education department of a state university. The Manhattan Project's total funding was a little over $8,000; not an outlandish commitment in funds for a really dedicated district.

Manhattan has committed itself to at least a three year program. During this time it hopes to train a majority of its high school faculty. As more teachers are trained they will help each other and the students at Manhattan High will be the winners in a program devised with their improvement at the helm.

The second half of the paper will describe indepth the inservice components and the evaluation measures.

Part II: The University's Role in Staff-Development and Program Evaluation

The literature has sometimes been less than clear as to what constitutes a "reading in the content areas program." Is it when 3-4 teachers get intensively involved, or, when the entire faculty gets involved by participating in one or two inservice sessions? Perhaps one could even argue that the entire faculty should get immediately and intensively involved. Whatever the appropriate answer may be, it is an important consideration to reach agreement upon long before the program begins.

At Manhattan High School, we relied more upon the concept of the change curve (Rogers, 1962) for gaining teacher participants. Simply stated, we looked for the early adopters; those willing to listen to and try new ideas. We felt this approach was superior to forcing some individuals or forcing an entire group to become involved and thus perhaps jeopardizing the program. If the program is then successful with the pilot group, the change curve could continue to operate and others would become involved in future semesters largely because of favorable responses they have heard from others.

Once it is ascertained as to who participates, there must be a clear understanding by all parties as to what factors comprise the content area portion of the reading program. To help facilitate this understanding, university personnel, school administrators, and the reading specialist reached verbal agreement on the characteristics of the program. For practical everyday purposes and for the sake of program evaluation, the overall operational definition of "reading in the content areas" was then written as follows:

OPERATIONAL DEFINITION OF "READING IN THE CONTENT AREAS"

Following a commitment by central office and building level administration and by teachers on a voluntary basis, each participating teacher will be presented with a reading in the content areas staff-development program lasting one academic year. (The cycle may be repeated in ensuing years at the same school as more teachers choose to become involved).

The reading in the content areas program in those select classrooms (where teachers have received training) is said to be in force after participants have completed the following types of activities:

1. Gain in-depth exposure through course readings and class discussions to the philosophy, rationale, theory, and research related to reading in the content areas.

2. Develop a working knowledge of and demonstrate methods for whole-class reading diagnosis and materials assessment.

3. Receive training in reading/study skills techniques to differentiate instruction and begin to use these techniques, in at least one class period per week, for regular content instruction.

At the risk of overemphasizing the obvious, it must be pointed out that this type of definition is essential. It serves to define the processes and the expected outcomes. It dispells the notion, for example, that a set of two or three inservices represents a realistic approach to developing a content area reading component.

A third principle followed, after deciding upon voluntary participants and the operational definition of the content area program, was to outline the staff-development program in general and then in specific terms. The general characteristics are as follows:

GENERAL CHARACTERISTICS OF STAFF-DEVELOPMENT PROGRAM

A. Each teacher commits 3 hours per week for 30 weeks to training and implementation sessions.

1. The first 15 weeks are comprised of <u>training</u> by teachers participating in a "Reading in the Content Areas" course.

2. The second 15 weeks represent further <u>training and implementation</u> of strategies learned by teachers participating in a "Secondary Reading Practicum" course.

B. Each teacher can earn up to six graduate credits in reading over a year's time and receives, from the district, a stipend large enough to pay for tuition and books.

C. The University will repeat the training cycle at the high school for up to three years to involve more faculty.

One can readily note from the steps listed that the teacher's commitment is quite clearly defined. Also, the steps are intended to convey the precept that adequate training will lead to implementation of these strategies on a regular basis. Finally, the steps portray the school district's and the university's resolve to foster the program.

The specifics of the staff development program are listed in terms of two 15 week segments. The first fifteen weeks are outlined in general terms:

GOALS FOR READING IN THE CONTENT AREAS COURSE

I. Learn techniques for developing class profiles
   --cloze
   --group informal reading inventory
   --San Diego Quick Assessment
   --interpreting other standardized and informal test data

II. Learn how to assess instructional materials
   --readability (strengths and limitations)
   --other textual features to consider (print, illustrations, introductions, summaries, etc.)

III. Learn techniques to differentiate instruction within content areas
   --3-level study guides
   --DRA
   --SQ3R
   --ReQuest
   --Guided Lecture Procedure
   --Understanding paragraph patterns
   --Context clue instruction
   --Varying the reading rate
   --Guided Reading Procedure
   --Others

IV. Explore the interrelationship of content area program to total school reading program
--cover roles/responsibilities of all concerned directly and indirectly with reading
--discuss referral processes
--describe resources available

For this portion of the training, teachers meet once per week for three hour class session held at the high school (immediately after regular school hours). While teachers are involved in readings, class discussions, and/or projects in all four areas described, it would be safe to say that area three (techniques to differentiate instruction) receives the most time and attention.

The specific facets of the second phase of the program (Secondary Practicum) are presented in the following fashion:

GOALS FOR SECONDARY READING PRACTICUM

I. Design lesson plans at least once per week which reflect reading in the content areas strategies.

II. Be observed at least three times per semester for input regarding the effectiveness of the strategy employed.

III. Independently work through at least one Vocational Reading Power module.

IV. Become familiar with additional strategies by consulting the Teacher Resource File.

V. Collect achievement and attitudinal data regarding student growth.

Several important factors from this final segment of training and implementation should be underscored. First, Steps I and II indicate the basic degree of regular involvement by the teachers. Also, neither of these first two steps is intended to represent a threat to the teacher. There are reading personnel available in the school each week to advise or assist the teacher with lesson-planning. Likewise, the purpose of the observations is to provide the teacher with objective feedback rather than to serve as a purely evaluative type of observation.

Step III indicates that there are a diversity of training materials and resources used. The Vocational Reading Power Modules, which are self-paced, bring an added dimension to this program.

Step IV represents what we consider to be one of the most attractive features of the practicum. We have assembled, categorized, and cataloged approximately 300 articles (selectively chosen) which relate to reading in the content areas. These collected articles are an additional source of new ideas--beyond what participants were exposed to during the first semester. The articles comprise what is known as the Teachers' Resource File.

Step V summarizes the basic thrusts of the entire secondary developmental program in the content areas. That is, "Can informal and formal data be collected on student attitudes and academic growth to demonstrate the worth of the program?"

To help resolve this issue, several questions in regard to program evaluation have been formulated and data are being collected. The questions in regard to the students are as follows:

EVALUATION PLAN

(Students)

Research Questions:

1. Will a reading in the content areas program improve students' attitudes toward reading?

2. Will a reading in the content areas program improve students' general reading ability?

3. Will a reading in the content areas program improve students' concept acquisition?

To answer the first question, we are analyzing the results of a set of pre- and postassessments using the Rhody Attitude Scale (1980).

We are looking for a significant change of the mean score for individual items and on the instrument as a whole.

For the second question, we are analyzing the pre- and posttest results from the Gates-MacGinitie Reading Tests with experimental means (content strategies applied) compared to the means from the control groups (more traditional approach; content strategies withheld). To help control for teacher variables, each teacher has an experimental and a control section which are statistically matched for equivalence. We will also be analyzing the same types of means from the reading portion of the Tests of Achievement and Proficiency.

In regard to the third question, we will also be comparing experimental group versus control group means. For this question, we will analyze the subtest from the Tests of Achievement and Proficiency most closely aligned to that content area (i.e., science subtest for the science content class). Informally, we will also be comparing the control groups' results on teacher-constructed content tests to the performance on the same tests by the experimental groups.

Another aspect of the program that is of vital interest to us concerns the amount of teacher growth. In other words, "Is the staff-development program effective?" Here are our basic questions.

EVALUATION PLAN

(Teachers)

Research Questions:

1. Will participating faculty indicate, through self-report data, greater confidence in incorporating reading in the content area strategies into their classrooms?

2. Will participating faculty make actual gains on pre- and post-assessment instruments following a series of competency-based workshops?

3. Can faculty demonstrate appropriate use of reading in the content areas strategies on a regular basis following one semester of training?

Question 1 will be resolved by analyzing results from a Vocational Reading Power questionnaire (pre- and postassessment).

Question 2 will be addressed by looking at results from a pre- and posttest (given before the inservice program began and at its conclusion) from the inservice manual (Alvarez & Colwell, 1979).

Question 3 is answered on an individual basis by the person responsible for examining the lesson plans and conducting the observations.

In summary, I would like to add that if this program is successful, which I believe it to be, it's because of the linkages that have developed. There are meaningful curricular linkages between the teachers and the principal; between principal and reading specialist; between principal and curriculum coordinator; between reading specialist and faculty; between the school and the National Dissemination Network; and, between the school and the university. From my point of view, it appears that these linkages have served the educational program and the students very well. These linkages take the form of clear communication channels, support, and cooperative effort. I think the final outcome is that Manhattan High School is one of a small percentage of secondary schools having a total thrust reading program by seeking and utilizing all available resources.

I might add, that significant side benefits have taken place. The teachers involved in the training sessions come from many different content areas. These workshops have helped erase the concept of departmentalism and have truly built in a greater feeling of camaraderie. There is also a greater understanding among the teachers of problems

encountered in each different subject area. The workshops have provided a unifying forum for these teachers who are otherwise involved in quite disparate interests. The type of working climate that has developed in the past year can only be described as healthy and productive.

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